

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
ALEXANDRIA DIVISION**

I PEE HOLDING, LLC,

Plaintiff,

V.

VIRGINIA TOY AND NOVELTY
COMPANY,

Defendant.

Civil Action No. 1:18-cv-01564-AJT-TCB

**MEMORANDUM IN SUPPORT OF
VIRGINIA TOY AND NOVELTY
COMPANY’S MOTION TO DISMISS OR, IN
THE ALTERNATIVE, MOTION FOR
JUDGMENT ON THE PLEADINGS**

Pursuant to Fed. R. Civ. P. 12, Defendant, Virginia Toy and Novelty Company (“VTC”) by and through its attorneys, respectfully moves this Court to dismiss the Complaint of I Pee Holding, LLC (“IPH”) or, in the alternative, moves this Court for judgment as a matter of law based on the Amended Counterclaim’s assertions of non-infringement and invalidity of the Asserted Claims under 35 U.S.C. §§ 271(a)/(b)/(c), 102, and 103, as set forth herein and as supported by the accompanying declaration of Joseph A. Farco (“Farco Decl.”) and Exhibits A-E, all of which being publically-available records.

I. INTRODUCTION

IPH alleges that certain of VTC's light string products (Product Numbers 21CB2MR, 21SFB1WR, 21BU2BG, 21SKB2W, 21PU2O, and 21BU2BO) (collectively, the "Accused Products") infringe U.S. Patent No. 10,064,461 (the "'461 Patent"). *See* Doc. 1 at p. 3, ¶12. IPH is not entitled to any relief because (i) the Accused Products do not infringe claims 1 and 8 of the '461 Patent, and (ii) each claim of the '461 Patent is fatally defective for failing to meet the statutory requirements for novelty and non-obviousness. *See* Doc. 28 at p. 30.

This case is about light string products, a very narrow type of which is claimed by the ‘461 Patent. The United States Patent and Trademark Office (“USPTO”) awarded IPH the ‘461 Patent because it narrowed its claims to a very specific type of snap-fit connection that sandwiches a freely-moveable light string between overlapping openings in each of a shroud and a cap so that the path formed by the parts is “substantially straight through.” *See* Doc. 1-1 at 4:54-5:8, 5:30-6:32.¹

Unbeknownst to the USPTO during examination of the application that would become IPH’s ‘461 Patent, Mr. George Tsai invented a light string that did exactly what the ‘461 Patent allegedly innovated. His improvement in light string technology was awarded U.S. Patent No. 8,083,381 (the “‘381 Patent”) on December 27, 2011, *years* before the ‘461 Patent ever was filed. *See* Doc. 28-1. On April 12, 2019, IPH admitted that the ‘381 Patent includes all the limitations of ‘461 Patent Claim 1, *see* Doc. 24, pp. 4-5, ¶¶ 22-25, but on May 17, 2019, after VTC filed its Amended Counterclaim and called attention to these admissions, IPH stated that its invalidity admissions “were clearly made in error.” *See* Doc. 29, at p. 6, ¶ 33.

In the face of the ‘381 Patent, IPH maintains that VTC’s Accused Products infringe at least Claims 1 and 8 of the ‘461 Patent. But to prevail, IPH has to convince the Court that an LED that is fixed in place by the ornament cover, as it is in the Accused Products, is nevertheless “non-integral with and separate, apart, and removable from” the ornament cover and its top.

II. BACKGROUND

On December 18, 2018, IPH filed the instant lawsuit against VTC for infringement of Claims 1 and 8 of the ‘461 Patent, but only plead with particularity how one of the Accused Products allegedly meets Claim 1 of that patent. Doc. 1. On March 22, 2019, VTC answered the

¹ This brief uses the convention “Column:line(s)” when citing to the written description in patent documents.

Complaint and filed its Counterclaim of non-infringement and invalidity of all claims of the ‘461 Patent. *See* Doc. 19. IPH answered the counterclaim on April 12, 2019. Doc. 24. On May 3, 2019, VTC filed its first Answer and Amended Counterclaim alleging non-infringement and invalidity of all claims of the ‘461 Patent. *See* Doc. 28. On May 17, 2019, IPH answered the Amended Counterclaim. Doc. 29.

Claims 1 and 8 of the ‘461 Patent require the Accused Products have a “conductor” (e.g., a wire) and a light element (e.g., the LED bulb), that are “non-integral with and separate, apart and removable from the shroud and the cap....” However, when viewing the Accused Products in their assembled formation, the Accused Products hold the LED bulb to the ornament covers using extensions – the complete opposite of allowing the LED bulb to be “non-integral with and separate, apart and removable from” the ornament cover. Therefore, there can be no literal infringement.

Additionally, all of the ‘461 Patent’s Claims are invalid as either anticipated or obvious. As IPH admitted in its first responsive pleading, all of the elements claimed in Claim 1 of the ‘461 Patent are in the prior art ‘381 Patent. VTC asserts that to the extent any one piece of prior art does not provide all of the elements of a particular ‘461 Patent claim, the person of ordinary skill in the art would be motivated to modify the ‘381 Patent based on other prior art.

Consequently, even if there was any patent infringement, which there is not, all of the ‘461 Patent’s claims are invalid as a matter of law and there can be no relief to IPH.

III. ARGUMENT

A. Legal Standards

1. Motion For Judgment On The Pleadings

In the Fourth Circuit, a motion for judgment on the pleadings pursuant to Federal Rule of Civil Procedure 12(c) is governed by the same standards as a motion to dismiss for failure to state a claim pursuant to Rule 12(b)(6). *Burbach Broad Co. of Del. v. Elkins Radio Corp.*, 278 F.3d 401, 405-06 (4th Cir. 2002) (“[T]he distinction is one without difference, as we . . . apply[] the same standard for Rule 12(c) motions as for motions made pursuant to Rule 12(b)(6).”) “To survive a 12(b)(6) motion, a complaint must contain sufficient factual matter, accepted as true, to state a claim to relief that is plausible on its face.” *Lawson v. Miles*, No. 1:11-CV-949-AJT-IDD, 2012 U.S. Dist. LEXIS 110982, at *5 (E.D. Va. Aug. 6, 2012) (Trenga, J.) (quotations omitted).

In evaluating a Rule 12(c) motion, a court may consider the complaint, the answer, matters of public record whose authenticity is not in dispute, and exhibits attached to the complaint or answer so long as they are “integral to the complaint and authentic.” *Massey v. Ojaniit*, 759 F.3d 343, 347 (4th Cir. 2014); *Philips v. Pitt County Mem’l Hosp.*, 572 F.3d 176, 180 (4th Cir. 2009). This includes any patents attached to the pleadings. *See, e.g., Phillips v. Pitt County Mem. Hosp.*, 572 F.3d 176, 180 (4th Cir. 2009). Where a plaintiff attaches documents relied upon to form the basis for a claim, dismissal is appropriate when the document negates the claim. *See, e.g., Little v. Bank of America*, 769 F. Supp. 2d 954, 963 (E.D. Va. 2011). Here, the ‘461 Patent, which is attached to and incorporated into the Complaint, is not infringed and is invalid as a matter of law and thus negates IPH’s infringement claims. Further, the prior art that invalidates the ‘461 Patent is attached to and incorporated into the First Amended Counterclaim.

2. Patent Infringement

A determination of patent infringement requires a two-step analysis: (i) construing the meaning of the claim language, and (ii) comparing the claim as construed to the accused device. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995) (en banc). Proper claim construction entails an analysis of a patent record's intrinsic evidence—the claim language, the written description, and the prosecution history. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (en banc).

Infringement is shown where a patentee proves that each and every limitation of the asserted claim is literally met by the accused device.² *Enercon v. Int'l Trade Comm'n*, 151 F.3d 1376, 1384 (Fed. Cir. 1998); *Amhil Enters. Ltd. v. Wawa, Inc.*, 81 F.3d 1554, 1562 (Fed. Cir. 1996) (literal infringement occurs when “the properly construed claim reads on the accused device exactly”). The failure to meet even a single element or limitation of a claim mandates a finding that the accused product does not infringe the patent. *Laitram Corp. v. Rexnord, Inc.*, 939 F.2d 1533, 1535 (Fed. Cir. 1991).

In evaluating whether a product infringes a patent, the fact finder first looks to whether the product or process infringes the independent claims because, as the Federal Circuit has observed, where a product or process does not infringe an independent claim, it cannot as a matter of law infringe any (dependent) claim that depends on the independent claim. *Wahpeton Canvas Co. v. Frontier, Inc.*, 870 F.2d 1546, 1552 n. 9 (Fed. Cir. 1989); *Streamfeeder, LLC v. Sure-Feed Sys., Inc.*, 175 F.3d 974, 985 (Fed. Cir. 1999).

² IPH has never pled that either Claim 1 or Claim 8 of the '461 Patent is infringed under the doctrine of equivalents. See Doc. 1 at pp. 4-7, ¶¶ 17-27.

3. Patent Invalidity

The presumption of a patent's validity under 35 U.S.C. §282 is rebuttable. *Sciele Pharma Inc. v. Lupin Ltd.*, 684 F.3d 1253, 1260 (Fed. Cir. 2012). Invalidity must be proven by clear and convincing evidence. *Microsoft Corp. v. i4i Ltd. Partnership*, 131 S.Ct. 2238, 2245-46 (2011). However, evidence bearing on patentability that the USPTO did not previously consider “may ‘carry more weight’ ... than evidence previously considered ... and may ‘go further toward sustaining the attacker’s unchanging burden.’” *Id.* at 2251. “[I]f the PTO did not have all material facts before it, its considered judgment may lose significant force” and the burden to prove invalidity may “be easier to sustain.” *Id.*

a) Anticipation

A reference anticipates a patent claim under 35 U.S.C. § 102(b) if every claim limitation is present in the reference. *See Verizon Servs. Corp. v. Cox Fibernet Va., Inc.*, 602 F.3d 1325, 1336–37 (Fed. Cir. 2010). A reference may anticipate inherently if a claim limitation that is not expressly described, “is necessarily present, or inherent, in the single anticipating reference.” *Id.* at 1337 (quoting *Schering Corp. v. Geneva Pharm., Inc.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003)). “[A]nticipation is a question of fact, including whether an element is inherent in the prior art.” *In re Gleave*, 560 F.3d 1331, 1334–35 (Fed. Cir. 2009).

Anticipation challenges under §102 must focus on the actual claim limitations, and “limitations ... not found anywhere in the claims” are irrelevant to anticipation. *See Constant v. Adv. Micro-Devices, Inc.*, 848 F.2d 1560, 1570-71 (Fed. Cir. 1988).

b) Obviousness

Obviousness is a question of law with underlying factual findings relating to the scope and content of the prior art, differences between the prior art and the claims at issue, the level of

ordinary skill in the pertinent art, the presence or absence of a motivation to combine or modify with a reasonable expectation of success, and any objective indicia of non-obviousness. *Acorda Therapeutics, Inc. v. Roxane Labs., Inc.*, 903 F.3d 1310, 1328 (Fed. Cir. 2018) (citing *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007)); *Ariosa Diagnostics v. Verinata Health, Inc.*, 805 F.3d 1359, 1364 (Fed. Cir. 2015). However, even a clear showing of secondary considerations of non-obviousness cannot overcome a strong *prima facie* case of obviousness. *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007); *Agrizap, Inc. v. Woodstream Corp.*, 520 F.3d 1337, 1344 (Fed. Cir. 2008).

“[W]hen a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result.” *KSR*, 550 U.S. at 416. Furthermore, with respect to “a patent based on the combination of elements found in the prior art,” “[s]uch a combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” 550 U.S. 398 at 415-16.

B. The ‘461 Patent Is Not Infringed

Of the eight claims in the ‘461 Patent, only Claims 1 and 8 are independent. *See* Doc. 1-1 at 4:54-5:8, 5:30-6:32. Therefore, every limitation required by Claim 1 is incorporated into Claims 2-7. *Wahpeton*, 870 F.2d at 1552 n. 9; *Streamfeeder*, 175 F.3d at 985. Claims 1 and 8, i.e., all claims in the ‘461 Patent, require *inter alia*, the following:

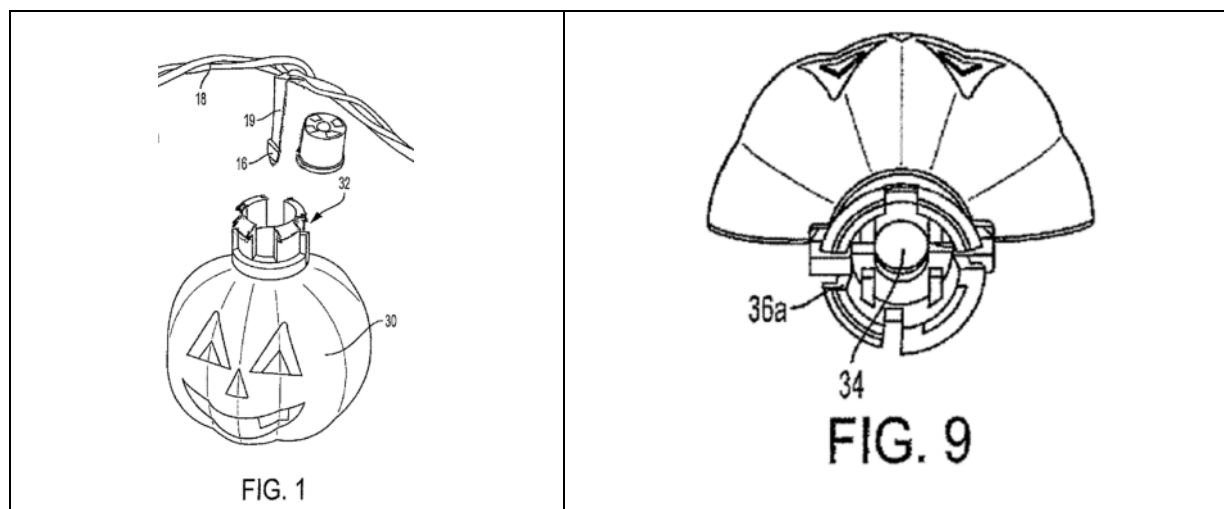
- “the conductor and light element are non-integral with and separate , apart and removable from the shroud and the cap...,” (Claim 1); and
- “the conductor and the plurality of LED light elements are non-integral with and separate, apart and removable from respective ones of their shrouds and caps.” (Claim 8)

Doc. 1-1 at 5:5-7; 6:29-32. While the Court must construe Claims 1 and 8 in the light most favorable to IPH, VTC advocates that the limitation “the conductor and light element are non-

integral with and separate, apart and removable from the shroud and the cap,” should require at a minimum, ***“the conductor and light element are free from restraint by any parts or components of the shroud or the cap when the shroud and cap are connected and disconnected from one another.”***

1. Support for VTC’s Construction

Beginning with its specification, the ‘461 Patent discloses “a light string assembly configuration that eliminates the need for fasteners and in particular, metal fasteners.” Doc. 1-1 at 1:42-44. Figures 1 and 4 provide further evidence related to the construction of this claim limitation. Figure 1 of the ‘461 Patent illustrates a conductor (18) and light element (16) being completely free of either the cap or the shroud (30) when the product is an unassembled state. Figure 4 illustrates a shroud with a neck (34) that has a circular opening without any obstructing structures so that light element (16) can fit in that opening without resistance by the shroud:



The Federal Circuit encourages courts to look to the prosecution history of the patent because “[a]ny explanation, elaboration, or qualification presented by the inventor during patent examination is relevant....” *Fenner Invs., Ltd. v. Cellco P’ship*, 778 F.3d 1320, 1323 (Fed. Cir. 2015). Prosecution history statements can “demonstrate[e] how the inventor understood the

invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.” *Phillips*, 415 F.3d at 1317.

During prosecution of the patent application that matured into the ‘461 Patent, IPH argued that the prior art did not anticipate its then-pending independent claims because:

The conductor and light element are non-integral with and separate, apart and removable from the shroud and the cap. That is, the light element (LED) mounted on the conductor can be removed from the shroud and the cap. Unlike the device of Myson in the presently claimed light string, the conductor and light element are separate elements from the cap. That is the light element and conductor are a complete and independent unit (from the cap and shroud) that is fitted into the cut-outs in the shroud.

Farco Decl. Exh. A (‘461 Patent Prosecution History, July 10, 2017 Amendment B, pp. 5-6).

Subsequently, the patent examiner cited U.S. Patent No. 6,648,492 to Shih to show this limitation, and thereby evidence what it means to a person of ordinary skill in the art:

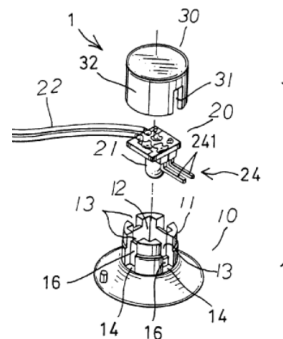


FIG. 4

Farco Decl. Exh. B (‘461 Patent Prosecution History, January 19, 2018 Non-Final Office Action, p. 3 (citing Figure 4 of Shih Patent)).³ Furthermore, the Patent Examiner in the Reasons for Allowance stated:

As *Shih* was the only prior art discovered by the Examiner that taught the cooperating cutouts along with the other recited features (the conductor, light element, shroud, the neck, cap, non-integral design – which is critical in the instant case), as recited by the applicant, in the relevant art, the instant application is allowable as *Shih* is not modifiable by a secondary reference.

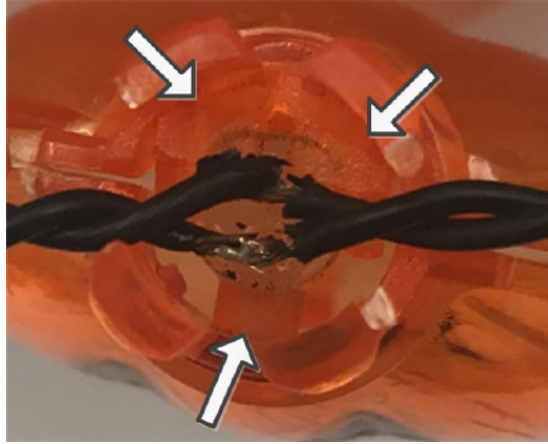
Farco Decl. Exh. C (‘461 Patent Prosecution History, July 13, 2018 Notice of Allowability, p. 3).

Therefore, any construction advocated by IPH on this motion should contain at least the construction proposed by VTC.

2. The Conductor and Light Element of the VTC Accused Product Do Not Satisfy The “Non-Integral With And Separate, Apart And Removable From The Shroud And The Cap” Limitation

As can be seen in Figure 2 of the First Amended Counterclaim (Doc. 28 at pp. 8-9, ¶10, reproduced below), the white arrows identify plastic extensions in the neck of the VTC Accused Product which are used to hold the light element when the ornament cover is assembled.

³ Statements by a patent examiner during prosecution may be evidence of how one of ordinary skill understood a claim limitation. *See Salazar v. Procter & Gamble Co.*, 414 F.3d 1342, 1347 (Fed. Cir. 2005).



As a result, the neck of the VTC Accused Products restrains the light inside the ornament cover using tabbed structures extending radially-inward from the neck towards the opening for the light. Therefore, the VTC Accused Products do not literally infringe any of the ‘461 Patent claims for failing to meet the limitation “the conductor and light element are non-integral with and separate, apart and removable from the shroud and the cap.”

C. All Claims Of The ‘461 Patent Are Invalid

IPH will not dispute that the ‘461 Patent’s earliest effective filing date is August 27, 2015, which makes the ‘461 Patent subject to the rules in place following the American Inventors Act (“AIA”). According to those rules, the invalidity of the ‘461 Patent is based upon its earliest effective filing date. *See* 35 U.S.C. §§ 102(a) and 103(a) (2018). The ‘381 Patent, which issued on December 27, 2011, was “patented ... before the effective filing date of the claimed invention,” and therefore is prior art to the ‘461 Patent under 35 U.S.C. § 102(a)(1).⁴

⁴ The ‘381 Patent was never considered by the USPTO during prosecution of the application that became the ‘461 Patent. Thus, the ‘381 Patent is “evidence bearing on patentability that the USPTO did not previously consider” and “may ‘carry more weight’ ... than evidence previously considered ... and may ‘go further toward sustaining the attacker’s unchanging burden.’” *Microsoft*, 131 S.Ct. at 2251 (“[I]f the PTO did not have all material facts before it, its considered judgment may lose significant force,” and burden to prove invalidity may “be easier to sustain.”)

1. The ‘381 Patent Includes All Limitations Of Claim 1

Claim 1 of the ‘461 Patent recites:

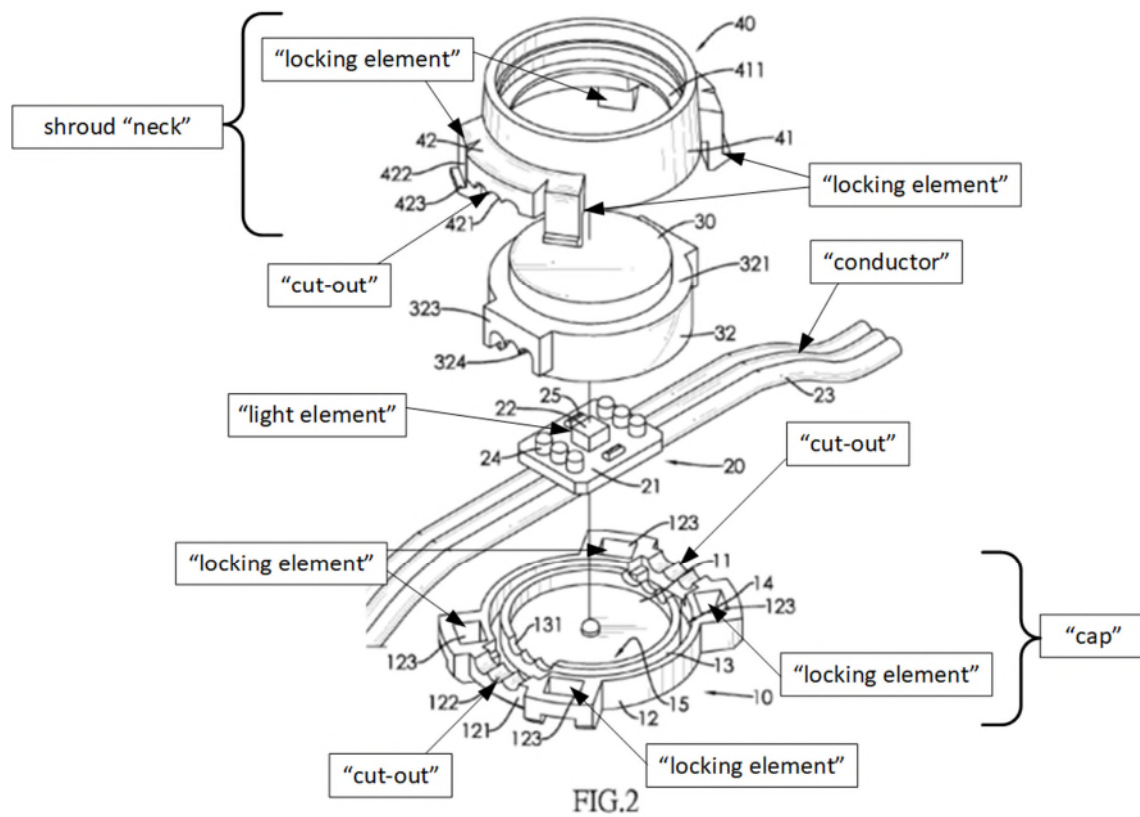
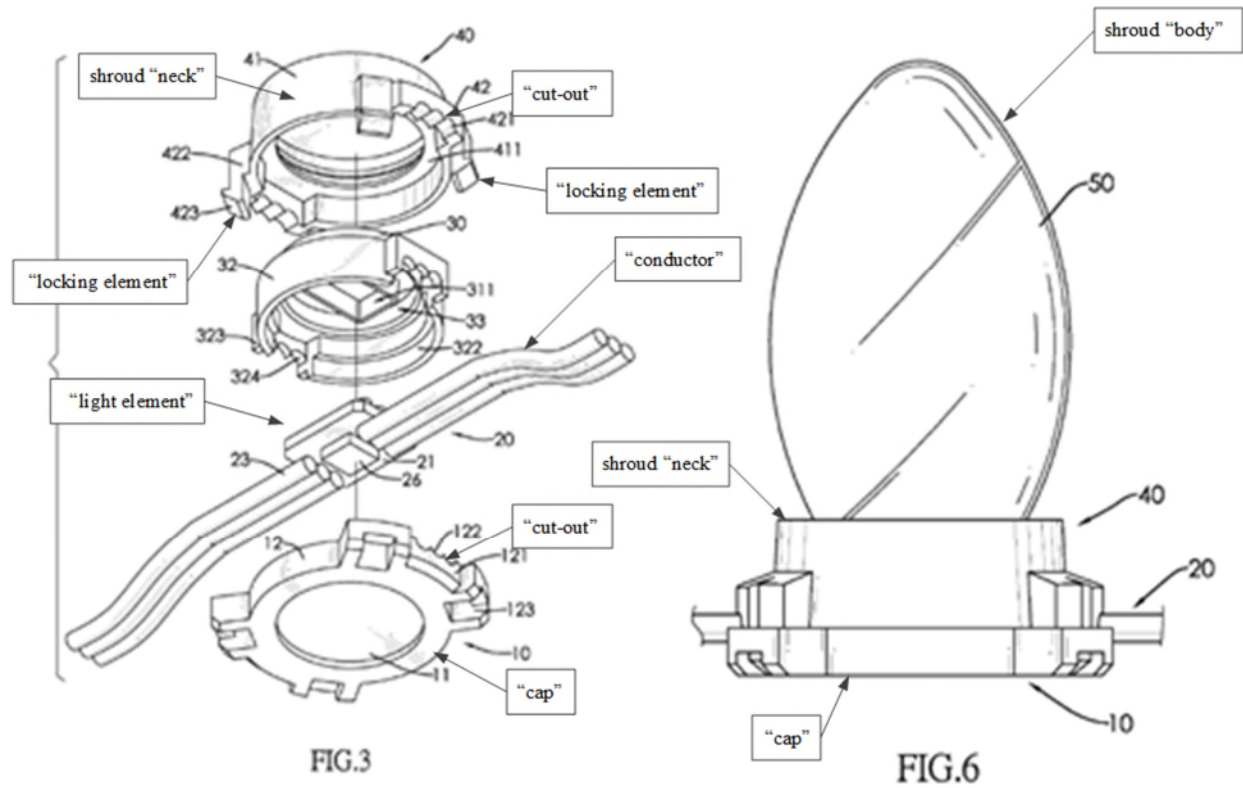
A light string with a snap-fit enclosure, comprising:

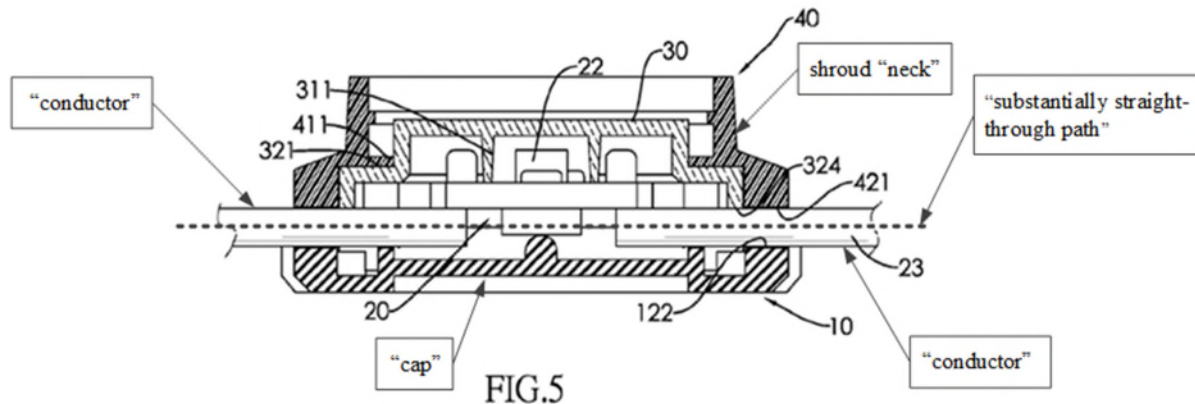
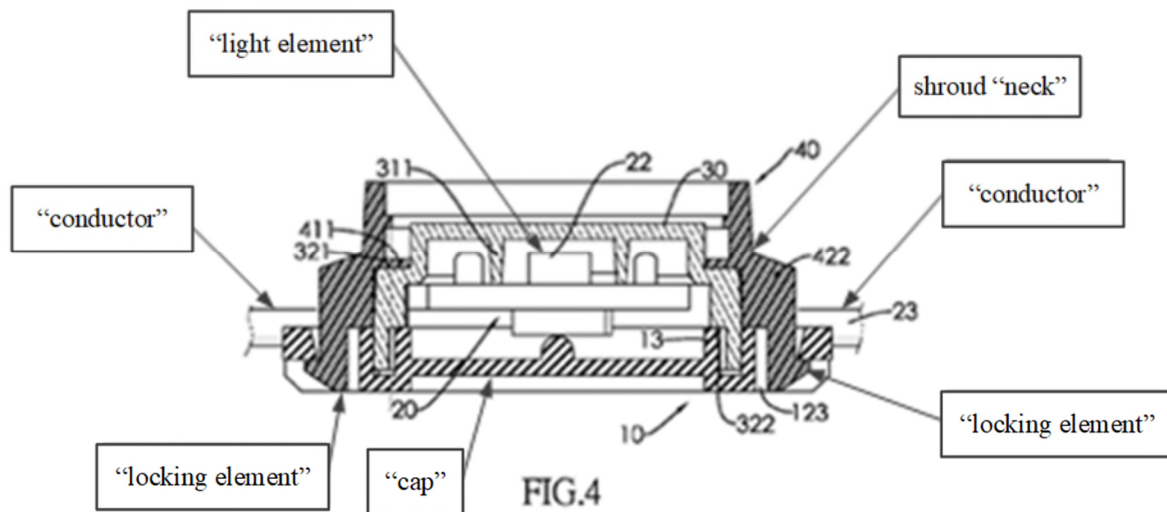
a conductor; a light element mounted to the conductor; a shroud having a body having an open interior and a neck, the neck having an opening therein, open to the body interior; a cap, the configured to fit onto the neck; and

cooperating locking elements positioned in the cap and on the neck to lock the cap to the neck, such that the cap is secured to the neck and the light element secured within the shroud without the need for an external fastener, wherein the cap and the neck have at least two cut-outs formed therein, respective ones of the cap cut-outs and the neck cut-outs cooperating and aligning with one another to define a substantially straight-through path, the substantially straight-through path configured to receive the conductor with the cap secured to the neck,

wherein the conductor and light element are non-integral with and separate, apart and removable from the shroud and the cap, and wherein the shroud is substantially enclosed.

Doc. 1-1 at 4:54- 5:8. IPH admitted that the ‘381 Patent includes each and every limitation of Claim 1 of the ‘461 Patent. *See, e.g.*, Doc. 24, pp. 4-5, ¶¶ 22-25. Below are figures from the ‘381 Patent which have been annotated to show satisfaction of each and every limitation of Claim 1:





Doc. 28-1, Figs. 3, 4, and 6 (annotations supplied). *See also* Doc. 28-1 at 1:63-64, 2:9-42, 2:66 – 3:22, 3:25-29; Figs. 2-6 (annotations supplied).

As shown above, the ‘381 Patent discloses “[a] light string with a snap-fit enclosure, comprising: a conductor; a light element mounted to the conductor; a shroud having a body having an open interior and a neck, the neck having an opening therein, open to the body interior; a cap ...; and cooperating locking elements positioned in the cap and on the neck to lock the cap to the neck.” *See also* Doc. 28-1 at 3:56 – 4:58 (Claims 1-2 and 16-17).

As shown above, the ‘381 Patent discloses, “the cap is secured to the neck and the light element secured within the shroud without the need for an external fastener.” See also Doc. 28-1 at 3:56 – 4:58, Claims 1-2 and 16-17.

As shown above, the ‘381 Patent discloses, “the cap and the neck have at least two cut-outs formed therein, respective ones of the cap cut-outs and the neck cut-outs cooperating and aligning with one another to define a substantially straight-through path ... configured to receive the conductor with the cap secured to the neck.” See Doc. 28-1 at 1:60-62; *see also* Doc. 28-1 at 3:56 – 4:58, Claims 1-2 and 16-17; Figs. 2 and 5.

As shown above, the ‘381 Patent discloses, “the conductor and light element are non-integral with and separate, apart and removable from the shroud and the cap,” and “the shroud is substantially enclosed.” See *id.* at Figs. 2-3.

Consequently, the ‘381 Patent discloses each and every limitation of Claim 1, thereby anticipating Claim 1 as a matter of law. *Verizon Servs.*, 602 F.3d at 1336–37.

2. The ‘381 Patent Includes All Limitations Of Claim 2

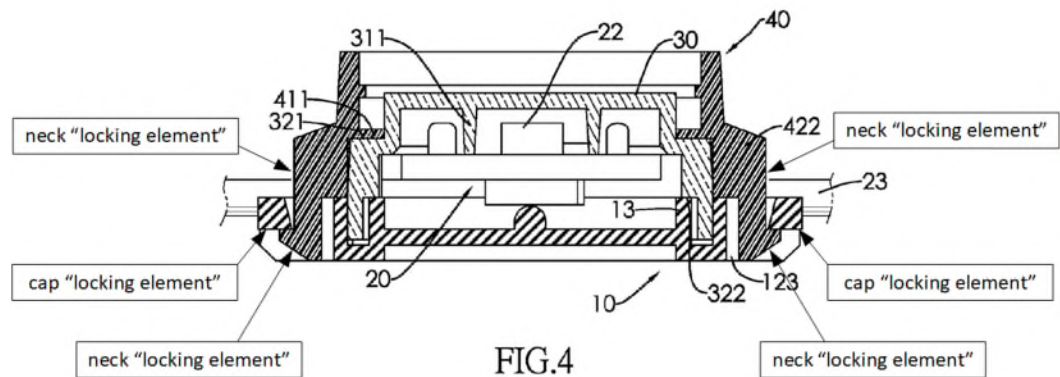
Claim 2 of the ‘461 patent requires the limitations of Claim 1 of the patent in addition to requiring “the light element is an LED.”

The ‘381 Patent discloses a light element that is an LED. See Doc. 28-1 at 2:31-34, *see also id.* at 3:56 – 4:64 (Claims 1-20 reciting “A holiday light with LED...”). Consequently, the ‘381 Patent discloses each and every limitation of Claim 2, thereby anticipating Claim 2 as a matter of law. *Verizon Servs.*, 602 F.3d at 1336–37.

3. The ‘381 Patent Includes All Limitations Of Claim 3

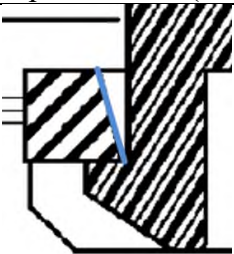
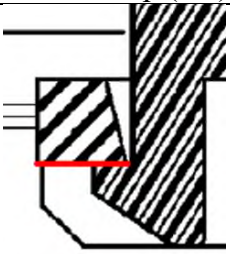
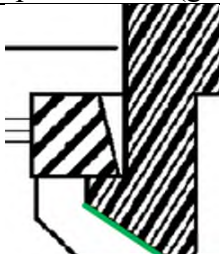

Claim 3 of the ‘461 patent requires the limitations of Claim 1 of the patent in addition to also requiring “the cooperating locking elements include a ramped surface and a lip on one of both of the cap and the neck.”

The ‘381 Patent discloses and illustrates “cooperating locking elements” that “include a ramped surface and a lip on one of both of the cap and the neck,” as shown below:



Doc. 28-1 at 3:6-22, 4:7-16, 4:55-56 (Claims 2 and 17); Fig. 4 (annotations supplied).

The ‘381 Patent illustrates the following surfaces as shown as exploded views of an annotated version of its Figure 4:

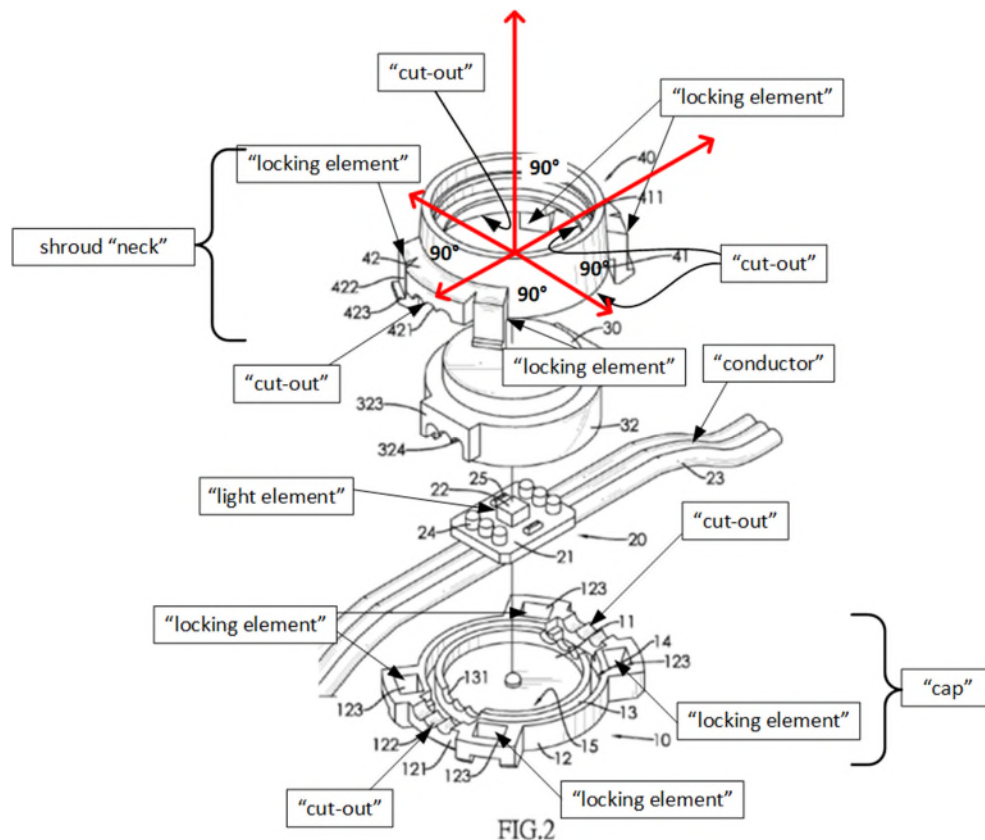
Cap Locking Element Ramped Surface (blue)	Cap Locking Element Lip (red)	Neck Locking Element Ramped Surface (green)	Neck Locking Element Lip (orange)
			

Because the ‘381 Patent discloses each and every limitation of Claim 3, Claim 3 is anticipated by the ‘381 Patent as a matter of law. *Verizon Servs.*, 602 F.3d at 1336–37.

4. The '381 Patent Includes All Limitations Of Claim 4

Claim 4 of the '461 patent requires the limitations of Claim 1 of the patent in addition to also requiring, "the neck includes four cuts-outs to define four sections, and wherein at least two of the sections include a ramped surface and a lip and wherein the cap includes corresponding ramped surfaces and lips to cooperate with and engage the ramped surfaces and lips of the neck."

As shown below in its annotated Figure 2, the '381 Patent discloses a "neck" that "includes four cuts-outs to define four sections [aligned at 90 degrees from each other], and wherein at least two of the sections include a ramped surface and a lip and wherein the cap includes corresponding ramped surfaces and lips to cooperate with and engage the ramped surfaces and lips of the neck...":



As shown in the annotated drawing above, the ‘381 Patent discloses each and every limitation of Claim 4, thereby anticipating Claim 4 as a matter of law. *Verizon Servs.*, 602 F.3d at 1336–37.

5. The ‘381 Patent Includes All Limitations Of Claim 6

Claim 6 of the ‘461 patent requires the limitations of Claim 1 of the patent in addition to also requiring, “at least three light elements mounted to the conductor spaced from one another, each light element enclosed within a shroud and secured therein by a cap.”

The ‘381 Patent discloses and illustrates “at least three light elements mounted to the conductor spaced from one another, each light element enclosed within a shroud and secured therein by a cap,” as shown below:

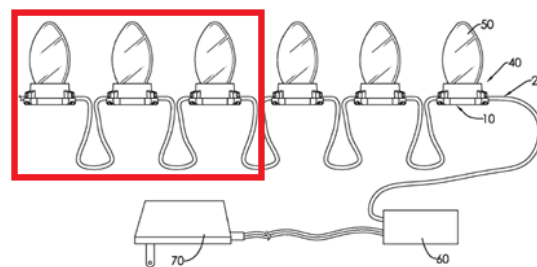


FIG. 7

As shown in the annotated drawing above, the ‘381 Patent discloses each and every limitation of Claim 6, thereby anticipating Claim 6 as a matter of law. *Verizon Servs.*, 602 F.3d at 1336–37.

6. Claims 5 and 7 Are Obvious Over The ‘381 Patent Because The Only Difference Between Them And The ‘381 Patent Is A Battery-Powered Controller And Switch

Claim 5 of the ‘461 patent requires the limitations of Claim 1 of the patent in addition to also requiring “a controller, the controller including one or more batteries and a switch.” *See* Doc. 1-1 at 5:20-21. Claim 7 of the ‘461 patent requires the limitations of Claim 6 of that patent, while also requiring, “a controller, the controller including one or more batteries and a switch,

the controller including circuitry to control a lighting scheme of the light elements.” *See* Doc. 1-1 at 5:26-29.

a) The Scope And Content Of The Prior Art

There is other prior art aside from the ‘381 Patent relevant to this inquiry on this motion:

- U.S. Patent No. 7,036,962 (the “‘962 Patent”), which was patented on May 2, 2006 and qualifies as prior art to the ‘461 Patent under 35 U.S.C. § 102(a)(1), discloses *inter alia* a light string controller and switch that uses a battery for the switch. *See* Doc. 28-2 at 5:19-23; Fig. 5.

- U.S. Patent Application Publication No. 2009/0161372 (the “‘372 Publication”), which was published on June 25, 2009 and qualifies as prior art to the ‘461 Patent under 35 U.S.C. § 102(a)(1), discloses *inter alia* equally circumferentially-spaced cut-outs for a neck and a cap for light strings. Doc. 28-3 at ¶ [0034]; Figs. 2 & 6.⁵

- U.S. Patent Application Publication No. 2005/0117339 (the “‘339 Publication”), which was published on June 2, 2005 and qualifies as prior art to the ‘461 Patent under 35 U.S.C. § 102(a)(1), discloses *inter alia* an illuminating light string arrangement 1 with a control unit 30 that can be powered in one of two ways: (i) a power device 40, which is a connector to an external power source (e.g., plug-in); or (ii) power device 40’, which is embodied as a battery case having a predetermined number of DC batteries. *See* Doc. 28-4, ¶¶ [0046], [0051]; Figs. 3A, 4.⁶

- U.S. Patent No. 7,178,930 (the “‘930 Patent”), which was patented on February 20, 2007 and qualifies as prior art to the ‘461 Patent under 35 U.S.C. § 102(a)(1), discloses *inter*

⁵ Like the prior art ‘381 Patent, this prior art reference was never considered by the USPTO during prosecution of the ‘461 Patent. *See, e.g.,* note 4 *supra*.

⁶ Like the prior art ‘381 Patent, this prior art reference was never considered by the USPTO during prosecution of the ‘461 Patent. *See, e.g.,* note 4 *supra*.

alia a light string controller and switch that uses a plurality of batteries. Doc. 28-5 at 5:1-5, 5:43-57; Figs. 4 & 10 (item 70- battery housing).⁷

- International Patent Application Publication No. WO98/43014 (the “‘014 Publication”), which was published on October 1, 1998 and qualifies as prior art to the ‘461 Patent under 35 U.S.C. § 102(a)(1), discloses *inter alia* a string of LED light emitting devices 11/112 electrically connected to a DC battery 17/113 connected to an inverter/controller 21/111 and timer 29 used to provide differing optical effects. *See* Doc. 28-6, p. 3, lines 1-3, p. 7, line 8-9, p. 7, line 20 – p. 9, line 21, p. 12, line 1 – p. 13, line 7; Figs. 1, 5.⁸

- The ‘461 Patent itself admits that light strings can be used as necklaces when their bulbs are LEDs, implying that they are not powered by external sources.⁹ *See* Doc. 1-1 at 1:11-19 (“Light strings or string lights are typically outdoor ornamental devices that include a plurality of lights that are powered and hung from shielded or insulated wires. These devices can also be used, as, for example, a necklace, when the ends of the string are secured to one another.”)

b) The Level Of Ordinary Skill In The Pertinent Art

VTC asserts that the level of ordinary skill in the art related to the ‘461 Patent is one that would permit a skilled artisan to modify the prior art in the manner identified by the USPTO during prosecution of the application that matured into the ‘461 Patent:

⁷ Like the prior art ‘381 Patent, this prior art reference was never considered by the USPTO during prosecution of the ‘461 Patent. *See, e.g.,* note 4 *supra*.

⁸ Like the prior art ‘381 Patent, this prior art reference was never considered by the USPTO during prosecution of the ‘461 Patent. *See, e.g.,* note 4 *supra*.

⁹ Despite this admission in its own patent, IPH still would not admit that “[b]atteries for light string controller switches were already known in the prior art” and that “[l]ight strings that rely on battery power are in the prior art.” *See* Doc. 29 at 8-9, ¶¶ 54, 72.

It would have been obvious to one of ordinary skill in the art at the time of filing to install the controller, battery, and switch of [one prior art reference] into the lamp of [another prior art reference] in order to allow the lamp to provide a variety of lighting effects, to *allow the lamp to be powered without an external power supply*, and to allow for the lamp to be turned on and off.

Farco Decl. Exh. B at pp. 5, 8 (emphasis added). Neither IPH nor its representative ever disputed this level of ordinary skill in the art. *See* Farco Decl. Exh. D (May 15, 2018 Applicant Initiated Interview Summary), Farco Decl. Exh. E (May 15, 2018, Amendment C, pp. 7-8).

Thus, the person of ordinary skill in the art is one who would be able to modify a prior art light string that was powered by external power to be powered “without an external power supply.”

c) Differences Between The Prior Art And The Claims At Issue

The ‘381 Patent discloses a controller with a switch to control the lights of the light string to effect a lighting scheme. *See* Doc. 28-1 at 1, lines 40-42; Col. 2, lines 31-34, Col. 3, lines 30-41 (IC controller 60 to control LEDs (22) to “light according to a program for aesthetic effects, for instance, light synchronously with a same color, light gradually with different colors” and otherwise “provide[] various lighting effects”); Figure 7, item 60.

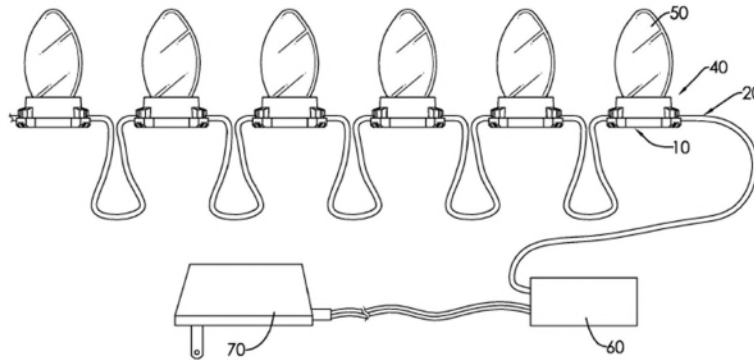


FIG. 7

Thus, the difference between the '381 Patent and claims 5 and 7 of the '461 Patent is that the '381 Patent discloses a light string whose LEDs rely on external AC power via a transformer to power the IC controller and switch both of which being used to provide various lighting effects.

d) Motivation Exists To Modify The '381 Patent To Use Batteries With Its Controller And Switch

There is clear and convincing evidence that a person having the level of ordinary skill in the art (in §III.C.6(b)) who was in possession of the scope and content of the prior art (in §III.C.6(a)) would be motivated as of the effective filing date of the '461 Patent to modify the '381 Patent so that its IC controller and switch would be powered by at least one battery instead of an external AC power supply via a transformer. As the prior art shows, that person of ordinary skill in the art would be able to modify the '381 Patent so that its IC controller and transformer would be powered by a battery instead of an external power supply with a reasonable expectation of success.

Any of the light string controller and switches which rely on battery power and are disclosed in the prior art '339 Publication, the prior art '014 Publication, the prior art '962 Patent, and the prior art '930 Patent can be installed in place of the '381 Patent's IC controller

and transformer without any change in the result, i.e., powering the light string and powering the controller and switch to instruct programmed lighting schemes. *See KSR*, 550 U.S. at 416 (“when a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result.”) This installation of a controller with a switch and one or more batteries from the prior art ‘339 Publication, ‘014 Publication, ‘962 Patent, and/or ‘930 Patent into the light string disclosed in the prior art ‘381 Patent was within the level of ordinary skill in the art. *See* Farco Decl. Exh. B at pp. 5, 8 (“[i]t would have been obvious to one of ordinary skill in the art at the time of filing to install the controller, battery, and switch of [one prior art reference] into the lamp of [another prior art reference] in order to ... allow the lamp to be powered without an external power supply....”)

As shown by the ‘339 Publication, the use of a battery to power the IC controller and switch in the ‘381 Patent would have been obvious to try because the problem of powering a light string has a limited number of (in this case two) identified, predictable solutions:

The power device is preferably embodied as a regular AC-DC transformer electrically connecting between the light String and a regular AC power Supply So as to convert AC power to DC and supply the DC to the control unit 30 for use by the illuminators 13 of the illuminating units 10.

See Doc. 28-4 at ¶ [0046]; Fig. 3A.

According to the preferred embodiment, the power device 40' is embodied as a battery case electrically connected with the control unit 30' wherein the battery case is adapted to receive a predetermined number of, Such as

four, DC batteries for providing electric power to the illuminating units
10'.

See Doc. 28-4 at ¶ [0051]; Fig. 4.

Therefore, by referring to the teachings and suggestions of the '339 Publication, the person of ordinary skill in the art had more than sufficient reason to pursue the two options for powering light strings (external AC power or battery power), substitute the battery-powered controller and switch for the external AC-powered controller and switch of the '381 Patent, and in making that substitution have a reasonable expectation of success. See *KSR*, 550 U.S. at 421.

Consequently, Claims 5 and 7 of the '461 Patent are obvious over the '381 Patent in view of one or more of the '339 Publication, '014 Publication, '962 Patent, and/or '930 Patent, because there is a reasonable expectation of success in modifying or substituting the transformer and IC controller of the '381 Patent to be powered by batteries instead of external AC power.

7. Claim 8 Is Obvious Over The '381 Patent For Similar Reasons As Claims 1-7

a) The '381 Patent Discloses Substantially All Of Claim 8's Limitations

Claim 8 of the '461 Patent is the only other independent claim of the '461 Patent. As provided below, those limitations of Claim 8 that are present in the '381 Patent for the reasons provided in §§III.C.1-5 have been given emphasis by bold and italics:

a conductor;

a plurality of LED light elements mounted to the conductor;

a controller, the controller including one or more batteries and a switch, the controller including circuitry to control a lighting scheme of the LED light elements;

a plurality of shrouds, each shroud being substantially enclosed and having a body having an open interior and a neck, the neck having an opening therein, open to the body interior, the neck having four cut-outs formed therein equally circumferentially spaced from one another to define four sections, two opposing cut-outs configured to receive the conductor, such that the conductor is recessed from an end of the neck;

a plurality of caps, each cap configured to fit onto the neck of a respective one of the plurality of shrouds, each cap having at least two cut-outs therein cooperating with the cut-outs in the neck such that when the cap is positioned on the neck, the cut-outs in the neck and the cut-outs in the cap define a substantially straight through path for passage of the conductor; and

cooperating locking elements positioned in the cap and on the neck to lock the cap to the neck with the conductor positioned in the straight-through path, such that the cap is secured to the neck and the LED light element secured within the shroud without the need for an external fastener, the cooperating locking elements including a ramped surface and a lip on one or both of the cap and the neck, and wherein the conductor and the plurality of LED light elements are non-integral with and separate, apart and removable from respective ones of their shrouds and caps.

Doc. 1-1 at 5:30 – 6:32. Thus, the only limitation not expressly disclosed in the ‘381 Patent is a “controller including one or more batteries.”

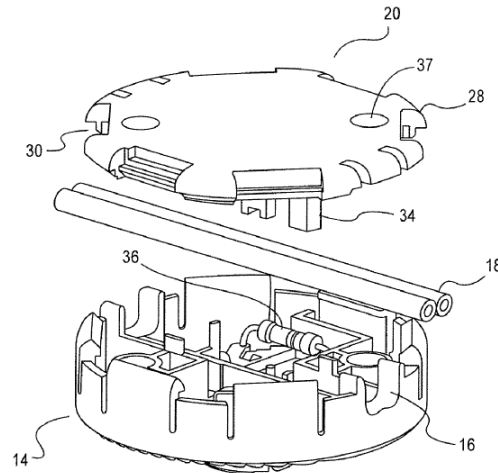
b) The “Controller Including One Or More Batteries” Limitation Is Obvious Over The ‘381 Patent

Like claims 5, 6, and 7 of the ‘461 Patent previously discussed, Claim 8 also recites a “controller” that “include[s] one or more batteries....” For the same reasons provided in § III.C.6, *supra*, the “controller including one or more batteries” limitation of Claim 8 would be obvious over the ‘381 Patent in view of one or more of the ‘339 Publication, ‘014 Publication, ‘962 Patent, and/or ‘930 Patent.

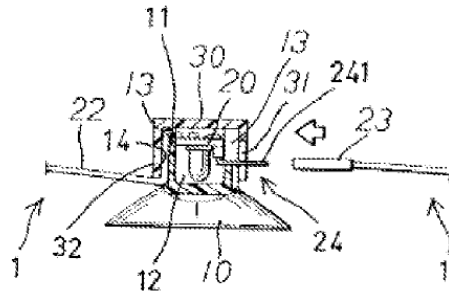
c) In The Event The ‘381 Patent Does Not Show The “Neck Having Four Cut-Outs Formed Therein Equally Circumferentially Spaced From One Another To Define Four Sections,” Limitation, That Limitation Is Obvious Over The ‘381 Patent

To the extent IPH contends that the cut-outs in the neck of the shroud disclosed in the ‘381 Patent are not “equally circumferentially spaced from one another,” VTC asserts that such a limitation would have been obvious over the ‘381 Patent in view of the ‘372 Publication.

The ‘372 Publication discloses and teaches a “perimeter of the socket cover 20 is partitioned to include ribs 28 and notches 30 for facilitating mounting thereof to the socket base 14. Particularly, snap latches 32 from the perimeter of the socket base 14 are used to latch onto the corresponding notches 30 of the socket cover 20 to insure positive assembly thereof and prevent wire strain.” Doc. 28-3 at ¶ [0034]; Figs. 2 & 6.



To take the four cut-outs in the ‘381 Patent and make them equally circumferentially-spaced about the neck would be achieved with a reasonable expectation of success by a person of ordinary skill in the art. The motivation for such a modification to the ‘381 Patent is provided for in the ‘372 Publication, and includes the goal of “insur[ing] positive assembly thereof and prevent[ing] wire strain.” *Id.* During prosecution of the application that became the ‘461 Patent in the USPTO, IPH argued that its claims avoided the prior art by avoiding strain on the wire via tortuous paths through the neck:



[A]s shown in the reproduced portion of Shih FIG. 2, referring to the left-hand side of the conductor, which appears to be 22, the conductor takes a sharp upward turn as it enters the space between the cap (30) and the peripheral wall (11), as it traverses to a circuit board (20). As such, there

is no “straight-through path configured to receive the conductor with the cap secured to the neck.” Instead, Shih has a rather tortuous path through which any conductor must pass.

Farco Decl. Exh. E at p. 6.

Therefore, there is motivation to modify the ‘381 Patent with the ‘372 Publication to achieve four cut-outs that are equally circumferentially-spaced about the neck and cap.

IV. CONCLUSION

The non-infringement of the invalid ‘461 patent attached to IPH’s complaint (Docs. 1, 1-1) negates IPH’s claim for relief and otherwise warrants that judgment against IPH be made on the pleadings in this case, including all the prior art attached and incorporated into the First Amended Counterclaim.

Accordingly, the Court should enter an order dismissing IPH’s claims of infringement of the ‘461 Patent by VTC and entering judgment of patent invalidity and non-infringement on the pleadings.

Dated: May 23, 2019

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on the 23rd day of May 2019, a true and complete copy of the foregoing was filed through the Court's CM/ECF system, which has served a copy on all counsel of record.

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